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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,916	08/08/2001	Cheng-Chih Chien	UPA-01188	3684

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EXAMINER

KNOLL, CLIFFORD H

ART UNIT	PAPER NUMBER
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2112

2

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,915

Applicant(s)

CHIEN ET AL.

Examiner

Clifford H Knoll

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-2, 3, and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1-2, 3, and 5, "a virtual storage device", quoted in place, is unclear because it is not clear what response or output is intended by this literal recitation.

In claims 1 and 3, "a real storage device", quoted in place, is unclear because it is not clear what literal interpretation is intended.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartung (US 5920709).

Regarding claim 1, Hartung discloses IDE hard disk drive (HDD) controller and a program code to respond to the ATA interface "a virtual storage device" in the case of lacking a real storage device connected to the IDE HDD controller via the ATA interface (e.g., col. 5, lines 31-33), or if the program code is executed to connect "a real storage device" to the IDE HDD controller via the ATA interface, connection of the IDE HDD controller with the ATA interface is disabled so that the real storage device will respond to the ATA interface directly (e.g., col. 6, lines 14-16).

Regarding claim 3, Hartung discloses IDE hard disk drive (HDD) controller and a program code to respond to the ATA interface "a virtual storage device" in the case of lacking a real storage device connected to the IDE HDD controller via the ATA interface (e.g., col. 5, lines 31-33), or respond to the ATA interface "a real storage device" if the program code is executed to connect a "real storage device" with the IDE hard disk drive. (e.g., col. 6, lines 14-16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2112

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartung as applied in claims 1 and 3 above, respectively, in view of industry standard response formats for ATAPI commands, as further evidenced by Lin (US 5721952).

Regarding claim 2, Hartung also discloses response to a comprehensive set of ATAPI commands (e.g., col. 16, lines 30-40), but does not expressly mention the detail of response format. However the Examiner takes Official Notice that these details are widely known industry standards as further evidenced by Lin. Lin discloses identifier table and partition table information as format details of an ATAPI command (e.g., col. 5, lines 48-57). It would be obvious to combine ATAPI response formats with Hartung ATAPI commands, because these formats are part of the widely known industry standard for ATAPI responses. Therefore it would be obvious to one of ordinary skill in the art to combine widely known ATAPI response formats with Hartung to obtain the claimed invention.

Regarding claim 5, Hartung also discloses response to a comprehensive set of ATAPI commands (e.g., col. 16, lines 30-40), but does not expressly mention the detail of response format. However the Examiner takes Official Notice that these details are widely known industry standards as further evidenced by Lin. Lin discloses identifier table and partition table information as format details of an ATAPI command (e.g., col. 5, lines 48-57). It would be obvious to combine ATAPI response formats with Hartung, because these formats are part of the widely known industry standard for ATAPI

Art Unit: 2112

responses. Therefore it would be obvious to one of ordinary skill in the art to combine widely known ATAPI response formats with Hartung to obtain the claimed invention.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hartung as applied to claim 3 above, in view of well known IDE peripheral device formats, as further evidenced by Estakhri (US 6385667).

Regarding claim 5, Hartung also discloses a wide variety of IDE devices (e.g., col. 14, lines 11-16), but fails to expressly mention the compact-flash memory storage device; however the Examiner takes Official Notice that the flash IDE is a well known device in the industry, as further evidenced by Estakhri. Estakhri discloses the ATA IDE interface to flash memory (e.g., col. 2, line 1). It would be obvious to combine the flash memory with Hartung because the IDE interface of flash memory is widely known in the industry. Therefore, it would be obvious to one of ordinary skill in the art to combine Hartung with flash IDE to obtain the claimed invention.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chen (US 6671751) and Boesch (US 5822547) both disclose hot swap IDE interfaces.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 703-305-8656. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2100.

chk


XUAN M. THAI
PRIMARY EXAMINER
TCUOJ